

CLAIMS

1. A method of transporting goods, comprising:

providing a jack-up barge;

providing a crane on the jack-up barge;

transferring goods between an ocean-going vessel and barges or other shallower-draft feeder vessels using the crane on the jack-up barge to unload the ocean-going vessel by transferring its containers to the barges or other shallower-draft feeder vessels and vice versa.

2. The method of claim 1, wherein the jack-up barge is positioned at the mouth of a river.

3. A system for transshipping containerized cargo, comprising:

a jack-up barge;

a crane on the jack-up barge for transferring goods between an ocean-going vessel and a barge or other shallower-draft feeder vessel using the crane on the jack-up barge.

4. A system for transshipping containerized cargo, comprising:

a plurality of jack-up barges connected together end-to-end to form a transshipping platform;

cranes on the jack-up barges for transferring goods between ocean-going vessels and barges or other shallower-draft feeder vessels using the cranes on the jack-up barges.

5. The system of claim 4, wherein the jack-up barges are each about 450 feet (137.2m) long and about 100 feet (30.5m) wide, with about a 20 foot (6.1m) hull depth and of an ocean-going hull design.

6. The system of claims 4 or 5, wherein there are at least four cranes.

7. The system of claims 4, 5, or 6, further comprising an upper transfer platform mounted on the crane above the transshipping platform.

8. The system of any one of claims 4-7, further comprising cargo transfer roadways on the transshipping platform.

9. The invention of any one of claims 1-3, wherein the jack-up barge is connected to a land site.

10. The invention of any one of claims 1-3, wherein the jack-up barge is not connected to a land site.

11. The invention of any one of claims 4-8, wherein the jack-up barges are connected to a land site.

12. The invention of any one of claims 4-8, wherein the jack-up barges are not connected to a land site.

13. A method of transporting goods, comprising:

providing a platform constructed over water;

providing a crane on the platform, wherein the crane is a gantry crane including a gantry trolley and at least one boom crane;

transferring goods between an ocean-going vessel and a barge or other shallower-draft feeder vessel using the crane on the platform.

14. The method of claim 13, wherein the platform is positioned at the mouth of a river.

15. A system for transshipping containerized cargo, comprising:

a platform constructed over water;

a crane on the platform for transferring goods between an ocean-going vessel and a barge or other shallower-draft feeder vessel using the crane on the platform, wherein the crane is a gantry crane including a gantry trolley and at least one boom crane.

16. The system of claim 15 for transshipping containerized cargo, wherein the platform comprises a plurality of jack-up barges connected together end-to-end to form a longer transshipping platform, and there are a plurality of cranes on the jack-up barges for transferring goods between ocean-going vessels and barges or other shallower-draft feeder vessels using the cranes on the jack-up barges.

17. The system of claim 16, wherein the jack-up barges are each about 450 feet (137.2m) long and about 100 feet (30.5m) wide, with about a 20 foot (6.1m) hull depth and of an ocean-going hull design.

18. The system of claims 16 or 17, wherein there are at least four cranes.

19. The system of claims 16, 17, or 18, further comprising an upper transfer rack mounted on the crane above the transshipping platform.

20. The system of any one of claims 16-19, further comprising cargo transfer roadways on the transshipping platform.

21. The invention of any one of claims 13-20, wherein the platform is connected to a land site.

22. The invention of any one of claims 13-20, wherein the platform is not connected to a land site.

23. The invention of any prior claim, wherein at least one crane is a gantry crane including a gantry trolley and at least one boom crane.

24. The invention of any prior claim, wherein at least one crane is a gantry crane including a gantry trolley and at least two boom cranes.

5 25. The invention of any prior claim, wherein at least one crane is a gantry crane including a gantry trolley and at least three boom cranes.

26. The invention of any one of claims 23-25, wherein at least one boom crane is a telescoping boom crane.

10 27. The invention of any prior claim, wherein the apparatus includes at least one mobile harbor crane.

28. A system for transshipping containerized cargo, comprising:
a transshipping platform constructed over water;
a plurality of cranes on the transshipping platform for transferring goods between an ocean-going vessel and a barge or other shallower-draft feeder vessel using the cranes on the transshipping platform, wherein at least two of the cranes are gantry cranes including a gantry trolley, at least one boom crane, and an upper transfer rack mounted on the gantry crane above the transshipping platform;
a cargo transfer roadway on the transshipping platform.

20 29. The system of claim 28 for transshipping containerized cargo, wherein the platform comprises a plurality of jack-up barges connected together end-to-end to form a longer transshipping platform, and there are a plurality of cranes on the jack-up barges for transferring goods between ocean-going vessels and barges or other shallower-draft feeder vessels using the cranes on the jack-up barges.

30 30. The system of claim 29, wherein the jack-up barges are each about 450 feet (137.2m) long and about 100 feet (30.5m) wide, with about a 20 foot (6.1m) hull depth and of an ocean-going hull design.

31. The invention of any one of claims 13-15, wherein the platform is fixed on piles or a material such as spoil or rock for its foundation.

32. The system substantially as described and shown herein.

30 33. The method substantially as described and shown herein.

34. Apparatus including:

a gantry;

a gantry crane attached to the gantry;

at least one rotating boom crane attached to the gantry.

35. The apparatus of claim 34, including at least two rotating boom cranes attached to
5 the gantry.

36. The apparatus of claim 34, wherein the gantry includes a ship side, and including at least one boom crane attached to the ship side of the gantry.

37. The apparatus of claim 34, wherein the gantry includes a back side, and including at least one boom crane attached to the back side of the gantry.

38. The apparatus of any one of claims 34-37, including three rotating boom cranes
10 attached to the gantry.

39. The apparatus of any one of claims 34-38, including four rotating boom cranes attached to the gantry.

40. Apparatus including:

15 a gantry;

a gantry crane attached to the gantry;

at least one rotating horizontal slewing boom crane attached to the gantry.

41. The apparatus of claim 40, including at least two rotating boom cranes attached to
the gantry.

42. The apparatus of claim 40, wherein the gantry includes a ship side, and including at least one boom crane attached to the ship side of the gantry.

43. The apparatus of claim 40, wherein the gantry includes a back side, and including at least one boom crane attached to the back side of the gantry.

44. Apparatus including:

25 a ship-to-shore gantry;

a gantry crane attached to the gantry;

a boom crane and frame attached to the ship-to-shore gantry.

45. Apparatus including:

a boom crane;

30 a frame for supporting the boom crane;

means for attaching the frame to a ship-to-shore gantry.

46. The apparatus of any one of claims 34-45, including three rotating boom cranes attached to the gantry.

47. The apparatus of any one of claims 34-46, including four rotating boom cranes attached to the gantry.

5 48. The apparatus of any one of claims 34-47, including at least one slewing boom crane attached to the gantry.

49. The apparatus of any one of claims 34-48, including at least one luffing boom crane attached to the gantry.

10 50. The apparatus of any one of claims 34-49, including at least one luffing boom crane attached to the gantry and at least one slewing boom crane attached to the gantry.

51. The apparatus of any one of claims 34-50, including two luffing boom cranes attached to the gantry and two slewing boom cranes attached to the gantry.

52. The invention(s) substantially as described and shown herein.

15 53. Apparatus including:

a gantry;

a trolley attached to the gantry;

at least one rotating, luffing, boom crane attached to the gantry.

54. The apparatus of claim 53, including at least two rotating boom cranes attached to the gantry.

20 55. The apparatus of claim 53, wherein the gantry includes a ship side, and including at least one boom crane attached to the ship side of the gantry.

56. The apparatus of claim 53, wherein the gantry includes a back side, and including at least one boom crane attached to the back side of the gantry.

25 57. The apparatus of claim 53, including three rotating boom cranes attached to the gantry.

58. The apparatus of claim 53, including four rotating boom cranes attached to the gantry.

59. (amended) Apparatus including:

a gantry;

30 a trolley attached to the gantry;

at least one rotating horizontal, luffing, slewing boom crane attached to the gantry.

60. The apparatus of claim 59, including at least two rotating boom cranes attached to the gantry.

61. The apparatus of claim 59, wherein the gantry includes a ship side, and including at least one boom crane attached to the ship side of the gantry.

5 62. The apparatus of claim 59, wherein the gantry includes a back side, and including at least one boom crane attached to the back side of the gantry.

63. Apparatus including:

a ship-to-shore gantry;

a trolley attached to the gantry;

10 a luffing, rotating, boom crane and frame attached to the ship-to-shore gantry.

64. Apparatus including:

a luffing, rotating, boom crane;

a frame for supporting the boom crane;

means for attaching the frame to a ship-to-shore gantry having a trolley.

15 65. The apparatus of claim 64, including three rotating boom cranes attached to the gantry.

66. The apparatus of claim 64, including four rotating boom cranes attached to the gantry.

20 67. The apparatus of claim 53, including at least one luffing boom crane attached to the gantry and at least one slewing boom crane attached to the gantry.

68. The apparatus of claim 53, including two luffing boom cranes attached to the gantry and two slewing boom cranes attached to the gantry.

69. The apparatus of any prior claim, further comprising a bi-directional trailer.

70. The apparatus of any prior claim, further comprising multiple bi-directional trailers.

25 71. The apparatus of any prior claim, further comprising an MPC island.

72. The apparatus of any prior claim, further comprising a platform extension.

73. The apparatus of any prior claim, further comprising platform extensions.